CIVIL AIR REGULATIONS

PART 43 GENERAL OPERATION RULES

CIVIL AERONAUTICS BOARD



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TITLE 14-CIVIL AVIATION

Chapter I—Civil Aeronautics Board

Subchapter A-Civil Air Regulations

PART 43-GENERAL OPERATION RULES

REVISION OF PART

Because of the number of outstanding amendments to Part 43 there follows a revision of Part 43 incorporating all amendments thereto which were in effect on October 1, 1954.

By the Civil Aeronautics Board.

M. C. MULLIGAN,

Secretary

GENTRAL

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43.70 Definitions.

AUTHORITY: \$\$ 43.1 to 43.70 issued under sec. 205, 52 Stat. 904, 49 U. S. C. 425. Interpret or apply sec. 601, 52 Stat. 1007, as amended; 49 U. S. C. 551.

§ 43.1 Scope. This part governs the operation of civil aircraft in the United States.

AIRCRAFT REQUIREMENTS

§ 43.10 Aircraft requirements. No aircraft, except foreign aircraft authorized by the Administrator to be flown in the United States, shall be operated unless an appropriate and valid airworthiness certificate or special flight authorization and a registration certificate issued to the owner of the aircraft are carried in the aircraft, and the aircraft is identified in accordance with the requirements of Part 1 of this subchapter.

(b) No aircraft, except foreign aircraft authorized by the Administrator to be flown in the United States, shall be operated unless there are available in the aircraft appropriate aircraft operating limitations set forth in a form and manner prescribed by the Administrator, or a current flight manual approved by the Administrator. An aircraft shall be operated only in accordance with its prescribed operating limitations.

MAINTENANCE

§ 43.20 General. An aircraft shall not be flown unless it is in airworthy condition. Mechanical work must be performed in accordance with Part 18 of this subchapter.

§ 43.21 Flight tests. When an aircraft has undergone any repair or alteration which may have appreciably changed its flight characteristics or substantially affected its operation in flight. such aircraft, prior to carrying passengers, shall be test flown by at least a private pilot appropriately rated for the aircraft, and a notation to that effect shall be entered by such pilot in the aircraft log.

§ 43.22 Inspections—(a) Annual inspection. An aircraft shall not be flown. except for airworthiness flight tests, unless within the preceding 12 calendar months it has been given an annual inspection as prescribed by the Administrator and has been found to be airworthy by a person designated by the Administrator.

(b) Periodic inspection. An aircraft shall not be flown for hire, unless within the preceding 100 hours of flight time it has been given a periodic inspection by an appropriately rated mechanic in accordance with the periodic inspection report form prescribed by the Administrator, has been found to be airworthy, and a notation to that effect has been entered by such mechanic in the aircraft log. The annual inspection required by paragraph (a) of this section will be accepted as one such periodic inspection.

(c) Air carrier exemption. Air carrier aircraft are exempted from paragraphs (a) and (b) of this section when such aircraft are maintained and inspected in accordance with a continuous maintenance and inspection system as provided for by Part 41, 42, or 61 of this subchapter.

§ 43.23 Aircraft and engine records. The registered owner of a certificated aircraft shall be responsible for main. taining and keeping available for inspection by an authorized representative of the Administrator or the Board and for transfer with the aircraft or engine the following records:

(a) Aircraft and engine records which shall contain a current, accurate, and permanent record including the flight time of the aircraft and each engine. reports of inspections, minor repairs, and minor alterations of the aircraft structure, engines, and propellers. A me-chanical device which records the total time of operation or the total number of engine revolutions may be used in lieu of individual flight entries: Provided, That the totals of flight time are recorded in the aircraft and engine records at periodic intervals to enable compliance with the required inspections and maintenance procedures.

(b) A record of major repairs and alterations shall be maintained as required by Part 18 of this subchapter. A reference to such major repairs and alterations shall be entered in the appropriate place in the aircraft records.

§ 43.24 Rebuilt engine logs. A new record without previous operating history may be used for an aircraft engine rebuilt by the manufacturer or any agency approved by the manufacturer for such work, provided such new record contains a signed statement by such manufacturer or agency giving the date the engine was rebuilt and such other information as the Administrator may require.

AIRCRAFT INSTRUMENTS AND EQUIPMENT

§ 43.30 Instruments and equipment for NC powered aircraft or powered aircraft with standard airworthiness certificates. The following instruments and equipment, or instruments and equipment which the Administrator has found to be the equivalent, are required for the particular category of operation specified:

(a) Contact flight rules (day). (1) Air-speed indicator.

:2: Altimeter.

(3) Magnetic direction indicator

(4) Tachometer for each entire.

(5) Oil pressure gauge for each engine using pressure system.

(6) Temperature gauge for each bquid-cooled engine.

(7) Oil temperature gauge for tach air-cooled engine.

(8) Manifold pressure gauge, or equivalent, for each altitude engine.

(9 Fuel page indicating the quantity of fuel in each tank.

(10) Position indicator, if aircraft has

retractable landing gear.

11. Approved flotation gear readily available for each occupant and a Very pistol or equivalent signal device, if the aircraft is operated for hire over water beyond gliding distance from shore with-

out the aid of power.

- (12) Safety belts for all occupants. Safety belts shall be of an approved type. In no case shall the rated strength of a safety belt be less than that corresponding with the ultimate load factors specified in the pertinent currently effective aircraft airworthiness parts of the regulations in this subchapter taking due account of the dimensional characteristics of the safety belt installation for the specific seat or berth arrangement. The webbing of safety belts shall be subject to periodic replacement as prescribed by the Administrator.
- (b) Contact flight rules (night). (1) Equipment specified in paragraph (a) of this section.

(2) Set of certificated forward and rear position lights.

(3) After May 31, 1956, an approved anti-collision light for aircraft having a maximum certificated weight of more than 12,500 pounds; except that in the event of failure of such light, the aircraft may continue flight to the next stop where repairs or replacements can be made without undue delay.

(4) One electric landing light, if the

aircraft is operated for hire.

(5) Certificated landing flares as follows, if the aircraft is operated for hire beyond a 3-mile radius from the center of the airport of take-off:

Maximum authorized weight of aircraft: 3,500 pounds or less: five class 3 or three

class 2 flares.

3,500 pounds to 5,000 pounds, four class 2 flares.

Above 5,000 pounds, two class 1 or three class 2 and one class 1 flares.

If desired, flare equipment specified for heavier amerafy may be used

(6) An adequate source of electrical energy for such electrical and radio equipment as is installed.

equipment as is installed.
(7) One spare set of fuses or 3 spare

fuses of each magnitude.
(C) Instrument flight rules. (1) Equipment specified for contact flight rules in paragraph a of this section and for night flight equipment specified in paragraph (b) of this section.

- (2) Two-way radio communications system and navigational equipment appropriate to the ground facilities to be used.
 - +3 · Gyroscopic rate-of-turn indicator.

44 Bank indicator.

- 5 Sensitive altimeter adjustable for change in barometric pressure.
 - 6) Clock with a sweep second hand
 7) Generator of adequate capacity
- \$43.31 Aircraft electronic navigation equipment accuracy. Except for aircraft in which the emindirectional radio range (VOR) equipment is maintained, checked, and inspected in accordance with a procedure approved by the Administrator, no person shall operate an aircraft under instrument flight rules using the VOR system of radio navigation unless the aircraft VOR equipment has been operationally checked, both within the preceding ten hours of aircraft flight time and within the preceding ten days, and found to be within the limits of the indicated bearing error

(a) or (b) of this section as follows:
(a) (1) If a CAA operated or approved
test signal? is available at the airport
of intended departure, a check of the
VOR equipment shall be accomplished
using this test signal. The maximum
permissible indicated bearing error is
plus or minus 4°.

specified in this section for the particu-

lar check. The checks shall be conduct-

ed in accordance with either paragraph

(2) If a CAA operated or approved test signal is not available at the airport of intended departure, a check shall be accomplished using a point on an airport surface designated by the Administrator as a VOR system check point. The maximum permissible indicated the property of the property of the property of the permissible indicated the permissible indicated the permissible of the permissible indicated the permissible of the permissible indicated the permissible of the permissible o

bearing error is plus or minus 4°.3° (3) If neither a CAA operated or approved test signal nor a designated check point on the airport surface is available, a check shall be accomplished using an airborne check point designated as such by the Administrator. The maximum permissible indicated bearing error is plus or minus 6°.

(4) In the event none of the checks prescribed in subparagraphs (1), (2), and (3) of this paragraph can be accomplished, because of the unavailability of a check signal or point, the following airborne procedure shall be accomplished.

(i) Select the VOR radial which lies along the center line of an established VOR airway.

(ii) Choose a prominent ground point along the selected radial preferably more than 20 miles from the VOR ground facility and maneuver the aircraft di-

An approved continuous maintenance and inspection program specified in Operations Specifications issued by or approved by the Administrator or any equivalent maintenance and inspection system specifically approved by the Administrator

approved by the Administrator.

CAA operated or approved test signals, and ground check points on an airport surface and airborne check points designated by the Administrator, will be shown in the Airman's Guide

In making this check, caution should be exercised to head the aircraft in a direction to prevent the aircraft structure from interfering with the ground signal. rectly over the point at a reasonably low altitude, and

(iii) Note the VOR bearing indicated by the receiver when over the boint. The maximum permissible difference between the published radial and the indicated bearing is plus or minus 6°.

(b) If dual systems (defined as VOR units independent of each other with the exception of the antennal are installed in the aircraft, one system may be checked against the other in the following manner in her of the check procedures specified above. Both systems shall be tuned to the same VOR ground facility and the indicated bearings to that station noted. The maximum permissible variation between the two indicated bearings is 4.

c The person making the VOR operational check as specified in paragraphs (a) or (b) of this section shall make an entry of such check in the aircraft log or other permanent record showing the date, place, bearing error, and his signature.

FILOTING RULES (GENERAL)

- § 43.40 Pilot certificate. No person shall pilot a civil aircraft within the United States unless he has in his personal possession at all times while piloting aircraft a valid pilot certificate with appropriate ratings issued by the Administrator, or an appropriate and valid foreign pilot certificate and ratings. Such certificate shall be presented for examination to any inspector of the Administration or State or local law enforcement officer upon the request of such inspector or enforcement officer
- § 43.41 Medical certificate and renewal. No person shall pilot an aircraft under authority of a pilot certificate issued by the Administrator, unless he has in his personal possession at all times while piloting aircraft a medical certificate or other evidence satisfactory to the Administrator showing that he has met the physical requirements appropriate to his rating within the following time limits:
- (a) Student or private pilot. 24 calendar months.
- (b) Commercial pilot. 12 calendar months, or 24 calendar months for operations requiring only a private pilot rating.
- (c: Airline transport pilot. Six calendar months, or 12 calendar months for operations requiring only a commercial pilot rating, or 24 calendar months for operations requiring only a private pilot rating.
- § 43.42 Operation during physical deficiency. A person shall not pilot any aircraft during a period of any known physical deficiency or increase in physical deficiency which would render him unable to meet the physical requirements prescribed for the issuance of his currently effective medical certificate.
- § 49.43 Pilot logbooks. A record of the flight time used to substantiate recent experience or qualification for certificates or ratings shall be kept in a bound logbook. The logging of other flight time is not required. Such record shall show:

- as Date of flight duration of flight, and the points between which such flight was made
- the Category and type of the aircraft flown, the airplane class and engine horsepower
 - (c) Aircraft identification mark,
- (d) Dual instruction endorsed by a rated instructor, sele pilot in command, instrument, and night flying time.
- : 43.44 Lagging of flight time—in. Student. A student pilot may log as sole only that time during which he is the sole occupant of the aircraft in flight.
- the Private and commercial—1-Pilot in command. A private or commercial pilot may log flight time as pilot in command that flight time adming which he is the sole manipulator of the controls of an aircraft for which he is rated or that flight time during which he is the sole occupant of the aircraft A flight instructor may log flight time as pilot in command that flight time during which he is serving as a flight instructor. All flight time so logged may be credited toward the total flight time required for a higher pilot rating
- pliot may log as copilot time that flight time during which he is performing the duties of a copilot. Such pilot shall be entitled to credit not more than 50 percent of such flight time toward the total flight time required for a higher grade of pilot rating, but in no event shall a private pilot be entitled to credit more than 50 hours of such flight time.
- (c) Instrument time. Instrument flight time may be logged as such by the pilot actually manipulating the controls only when the aircraft is flown solely by reference to instruments either under actual or simulated instrument flight conditions.
- § 43.45 Use of liquor, narcotics, and drugs. No person shall pilot an aircraft or serve as a member of the crew while under the influence of intoxicating liquor or use any drug which affects his faculties in any manner contrary to safety. A pilot shall not permit any person to be carried in the aircraft who is obviously under the influence of intoxicating liquor or drugs, except a medical patient under proper care or in case of emergency.
- § 43.46 Towing by aircraft. No pilot shall tow anything by aircraft unless authority for such operation has been issued by the Administrator.
- § 43.47 Dropping objects or persons.
 (a) No person piloting an aircraft shall permit any object to be dropped from such aircraft in flight which creates a hazard to persons or property.

Note: This rule prohibits neither aerial application operations, such as seeding, spraying or dusting, nor the dropping of newspapers, periodicals, circulars, or objects of any other kind, provided reasonable precautions are taken to avoid injury or damage to persons or property.

(b) No person piloting an aircraft shall permit a parachute jump to be made from such aircraft over congested areas of cities, towns, or settlements, or an open air assembly of persons except in an emergency or except under the terms of an authorization assued by the Administrator

-) 43 48 Aerobatic flight. No pilot shall intentionally fly an aircraft in aerobatic flight carrying passengers unless all occupants are equipped with approved parachutes.
- § 45.45 Parachutes. No phot shan carry on an aircraft a parachute which is available for emergency use unless:
- (a) It is an approved chair-type (canopy in back parachute which has been packed by a qualified parachute rigger within the preceding 120 days, or
- (b) It is an approved-type, other than a chair-type (canopy in back) parachute which has been packed by a qualified parachute rigger within the preceding 60 days.
- § 43.50 Transportation of explosives and other dangerous articles. No person piloting an aircraft shall permit explosives or other dangerous articles such as inflammable liquids or solids, oxidizing material, corrosive liquid, inflammable or noninflammable compressed gas, poison gas or liquid, poisonous liquid or solid, or tear gas to be carried in aircraft, except as provided for in Part 49 of this subchapter. Small arms ammunition for personal use, necessary aircraft signaling devices, and equipment necessary to safe operation of the aircraft are permitted.
- § 43.51 Fuel supply. Aircraft operated under IFR conditions shall carry sufficient fuel, considering weather reports and forecasts of wind and other weather conditions, to complete the flight to the point of first intended landing, to fly from there to the alternate airport, and to fly thereafter for 45 minutes at normal cruising speed.

STUDENT PILOT LIMITATIONS

- § 43.52 General limitations. No student pilot shall pilot an aircraft carrying a passenger, or on an international flight, or for compensation or hire, or in furtherance of a business.
- § 43.53 Requirements for first solo. A student pilot shall not operate an aircraft in solo flight until:
- (a) He has passed a written examination on the pertinent provisions of this part, Part 62, and those of Part 60 of this subchapter relating to visual flight rules.
- (b) He has been found competent by a flight instructor to make such flight and authority therefor has been endorsed by such instructor on the student pilot certificate, and
- (c) He has been given instruction in the prevention of and recovery from power-on and power-off stalls entered from all normally anticipated flight attitudes.
- § 43.54 Flight area limitations. A student pilot shall not pilot an aircraft outside a local flying area designated by his flight instructor until:
- (a) He has had a total of 15 hours of flight time, or, if enrolled in and receiving flying instruction from an approved air agency, he is deemed competent by such agency, and

- (b) He has received at least 3 hours of dual cross-country instruction from a flight instructor, and his student pilot certificate has been appropriately endorsed by such instructor.
- s 43.55 Aircraft limitations. A student shall not pilot an aircraft other that that of the category, class, and type which has been endorsed on his student pilot certificate by a flight instructor.
- \$43.56 Recent experience. A student who has not piloted a powered aircraft within 90 days shall not pilot such aircraft in solo flight until he has passed a flight check given by a flight instructor and that fact has been endorsed by such instructor in the student pilot lorbook.

PRIVATE AND COMMERCIAL PILOT PRIVILEGES AND LIMITATIONS

- § 43.60 Private pilot. A private pilot shall not pilot aircraft for compensation or hire; except that he may pilot aircraft in connection with any business or employment if the flight is merely incidental thereto and does not involve the carriage of persons or property for compensation or hire, and an aircraft salesman holding a private pilot rating may demonstrate aircraft in flight to a prospective purchaser if he has at least 200 hours of flight time credited in accordance with the provisions of this part.
- §43.61 Commercial pilot. A commercial pilot may pilot aircraft for hire. A commercial glider pilot may give flight instruction in gliders.
- § 43.62 Airline transport pilot. An airline transport pilot may exercise the privileges of a commercial pilot with an instrument rating.
- §43.63 Rating requirements. A private or commercial pilot shall not serve as pilot in command of an aircraft carrying passengers or operated for remuneration other than in aircraft of the category and class for which he is rated. After May 1, 1953, a private or commercial pilot shall not serve as pilot in command of aircraft exceeding 12,500 pounds maximum certificated weight when carrying passengers or operated for remuneration unless, in addition to proper category and class ratings, he also holds an appropriate type rating. Upon application to the Administrator prior to May 1, 1953, by the holder of a valid private or commercial pilot certificate, type ratings for each aircraft exceeding 12,500 pounds maximum certificated weight will be issued to such holder, without further showing of competency, upon presentation of reliable evidence that the certificate holder either has passed an official rating test, as prescribed by the Administrator, in that type aircraft; or has served as pilot in command and sole manipulator of the controls for at least 10 hours since May 1, 1949, and such aircraft was within his category and class ratings. A private or commercial pilot may serve as pilot in command of aircraft for which he is not rated when it is being flown without passengers and is not being operated for remuneration. unless other limitations placed on his certificate prohibit him from doing so.

NOTE. Nothing contained in this section shall be construed as relieving the restrictions with respect to private phots operating aircraft for hire.

§ 43 64 Flight instruction limitations. This section governs flight instructions:

- (a) Aircraft. Aircraft shall be equipped with fully functioning dual controls.
- b. Flight time. A flight instructor shall not give more than 8 hours of dual flight instruction in any one day and not more than 36 hours of dual flight instruction in any 7-day period.
- c. Endorsement of student pilot certificates. A flight instructor shall endorse the certificate of any student pilot for solo flight or flight in different categories, classes, and types of aircraft only if he has determined that the student is competent to exercise such privileges with safety, and for cross-country flight only if he has additionally determined that the student has an elementary knowledge of aeronautical charts, meteorological data, and the use of a magnetic compass.
- (d) Aircraft category limitations. A flight instructor shall not give flight instruction in a category of aircraft in which he has not demonstrated to an authorized representative of the Administrator his proficiency as a flight instructor.
- § 43.65 Instrument flight limitations. A pilot shall not pilot aircraft under instrument flight rules, unless he holds a valid instrument rating issued by the Administrator.
- § 43.66 Instrument flight instruction. Instrument flight instruction may be given only by a person holding an effective instrument rating. A flight instructor rating is not required.
- § 43.67 Simulated instrument flight. Aircraft shall not be flown under simulated instrument flight conditions unless:

(a) Fully functioning dual controls are installed in the aircraft.

- (b) An appropriately rated pilot occupies the other control seat as safety pilot, and
- (c) Such safety pilot at all times has adequate vision forward and to either side of the aircraft, or a competent observer occupies a position in the aircraft

so that his field of vision adequately supplements that of the safety pilot.

§ 43.68 Recent flight experience. This section governs recent flight experience:

- (a) General. No person shall pilot an aircraft carrying passengers unless within the preceding 90 days he has made at least 5 take-offs and landings to a full stop in aircraft of the same category, class, and type of aircraft to be flown. No person shall pilot a glider carrying passengers in aero-tow flight unless within the preceding 12 months he has made at least 6 aero-tow flights aggregating 1 hour during which the foregoing take-off and landing requirements are met.
- (b) Night flight. No person shall pilot an aircraft carrying passengers during the period from one hour after sunset to one hour before sunrise, unless he has made at least 5 take-offs and landings to a full stop during such period within the preceding 90 days.

(c) Instruction flight. A flight instructor shall not exercise the privileges of the instructor rating unless within the preceding 12 calendar months he has either:

(1) Given at least 10 hours of flight instruction while appropriately rated, or

(2) Demonstrated his continued proficiency to the Administrator.

(d) Instrument flight. A pilot shall not pilot an aircraft under instrument flight rules unless he has had at least 6 hours of instrument flight under actual or simulated flight conditions during the preceding six calendar months or until he has had 6 hours of such flight time under:

(I) Actual instrument conditions, accompanied by a pilot of at least private rating holding an appropriate aircraft

and instrument rating, or
(2) Simulated instrument conditions
in an aircraft accompanied by a pilot of

at least private rating holding an appropriate aircraft rating, or

(3) Simulated instrument conditions in equipment approved by the Administrator, except that at least 3 hours must have been had in accordance with subparagraphs (1) or (2) of this paragraph.

DEFINITIONS

§ 43.70 Definitions. As used in this part terms shall be defined as follows:

Category. Category shall indicate a classification of aircraft such as airplane, helicopter, glider, etc.

Class. Class shall indicate a difference in basic design of aircraft within a category, such as single-engine land, multiengine sea, etc.

Copilot. Copilot shall mean a pilot serving in any piloting capacity other than as pilot in command on aircraft requiring two pilots for normal operations, but excluding a pilot who is on board the aircraft for the sole purpose of receiving dual instruction.

Dual instruction time. Dual instruction time shall mean that portion of the flight time during which a person is receiving flight instruction from a rated flight instructor on board the aircraft.

Flight instructor. Flight instructor means a pilot who is qualified to instruct other pilots and who has received a flight instructor rating.

Flight time. Flight time shall mean the total time from the moment the aircraft first moves under its own power for the purpose of flight until the moment it comes to rest at the end of the flight.

Passenger. A passenger is an occupant of the aircraft in flight other than a crew member.

Pilot. A pilot is a person holding a valid pilot certificate issued by the Administrator.

Pilot in command. Pilot in command shall mean the pilot responsible for the operation and safety of the aircraft during the time defined as flight time.

Solo flight time. Solo flight time shall mean the flight time during which a pilot is the sole occupant of an aircraft.

To pilot. To pilot means to be in command of the aircraft during take-off, in flight, or landing.

Type. Type shall mean all aircraft of the same basic design including all modifications thereto except those modifications which result in a change in handling or flight characteristics.

NOTICE

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^{&#}x27;For example, a pilot taxies to the warmup apron and holds there for several minutes before taking off to permit the engine to warm up. Such taxi and warm-up time is not considered flight time. Flight time begins when the aircraft leaves the warmup apron and ends when the pilot returns to perking apron and turns the switches off